

**401 KAR 61:170. Existing blast furnace casthouses.**

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET  
Department for Environmental Protection  
Division for Air Quality

RELATES TO: KRS Chapter 224

STATUTORY AUTHORITY: KRS 224.10-100

NECESSITY AND FUNCTION: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to prescribe regulations for the prevention, abatement, and control of air pollution. This regulation provides for the control of emissions from existing blast furnace casthouses.

**Section 1. Applicability.**

The provisions of this regulation shall apply to blast furnace casthouses located in, or impacting upon, an area designated nonattainment for total suspended particulates under 401 KAR 51:010 which commenced before the classification date defined below. Blast furnace casthouses located in areas designated as nonattainment which were required to obtain permits prior to the effective date of this regulation shall maintain the permit and any applicable requirements when the area is redesignated in 401 KAR 51:010 or 40 CFR 81.318, unless a state implementation plan which provides for other controls is approved by the U.S. EPA.

**Section 2. Definitions.**

As used in this regulation all terms not defined herein shall have the meaning given them in 401 KAR 50:010.

(1) "Blast furnace casthouses" means the building or buildings which houses the following operations:

(a) Casting of hot metal from a blast furnace from an opening at the bottom of the furnace through a runner into a torpedo car; and

(b) Casting of the slag from a blast furnace from an opening at the bottom of the furnace through runner(s) into a slag ladle or slag pit.

(2) "Blast furnace" means a furnace producing pig iron by introducing iron-bearing materials, coke, and flux materials into a vessel and introducing heated combustion air to form a reducing gas which is passed counter current to the descending raw materials.

(3) "Classification date" means April 1, 1984.

(4) "Control device" means the air pollution control equipment used to remove particulate matter generated in the blast furnace casthouses from the effluent gas stream.

**Section 3. Standard for Particulate Matter.**

No owner or operator of a blast furnace casthouse subject to the provisions of this regulation shall cause to be discharged into the atmosphere from the blast furnace casthouse any gases which:

(1) Exhibit an average opacity in excess of twenty (20) percent.

(2) If such gases exit from a gas cleaner, no owner or operator subject to the provisions of this regulation shall cause to be discharged into the atmosphere any gases which:

(a) Contain particulate matter in excess of 0.010 gr/dscf as tested during the casting of hot metal and slag; or

(b) Exhibit an average opacity in excess of twenty (20) percent.

**Section 4. Test Methods and Procedures.**

Reference methods in Appendix A of 40 CFR 60, except as provided in 401 KAR 50:045, and as supplemented by the procedures in subsection (6) of this section, shall be used to determine compliance with the standards prescribed under Section 3 of this regulation as follows:

(1) Reference Method 5 for the concentration of particulate matter and associated moisture content;

(2) Reference Method 1 for sample and velocity traverses;

(3) Reference Method 2 for velocity and volumetric flow rate;  
(4) Reference Method 3 for gas analysis; and  
(5) Reference Method 9 for the determination of opacity.  
(6) For the purpose of determining compliance with Section 3(1) of this regulation, the following procedures shall be used to supplement Method 9:

(a) A series of consecutive observations taken at fifteen (15) second intervals shall be made during the entire period of time that hot metal and slag are being cast. Compliance shall be based on a comparison of the standard in Section 3(1) of this regulation with the highest average opacity occurring over any six (6) consecutive minutes during the period of observation. If emissions are being emitted from the roof monitor and other discharge points from the building, the reader shall read and record whichever plume is most opaque at the time of each reading.

(b)1. In making observations of roof monitor emissions, the reader shall be positioned within a sector seventy (70) degrees either side of a line perpendicular to the long axis of the roof monitor. Within this sector the reader shall be positioned with the sun behind him and generally perpendicular to the axis of the plume that is being observed. On overcast days or if the plume is in a shadow, the reader need not follow the requirement about positioning his back to the sun.

2. In making observations of emissions from other openings in the building, the reader shall be positioned within a sector seventy (70) degrees either side of a line perpendicular to the side of the building nearest which the emissions occur and with a clear view of the emissions. Within this sector the reader shall be positioned with the sun behind him and generally perpendicular to the axis of the plume that is being observed. On overcast days, the reader need not follow the requirement about positioning his back to the sun.

#### **Section 5. Compliance Timetable.**

The owner or operator of a blast furnace casthouse subject to the provisions of this regulation shall demonstrate compliance with Section 3 of this regulation on or before December 31, 1982.

#### **Section 6. Alternate Emission Limitations.**

The owner or operator of an affected facility subject to this regulation may propose an alternate plan pursuant to the requirements of 401 KAR 51:055 to meet the emissions limitations required by this regulation.

Effective Date: April 14, 1988

|              | Date Submitted<br>to EPA | Date Approved<br>by EPA | Federal<br>Register |
|--------------|--------------------------|-------------------------|---------------------|
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